MAJOR CLASSIFICATION INDEX OF ARTICLES

ANALYTICAL METHODS

Isotope dilution ICP-MS analysis of Pt in road dust 1123-1129

ENERGY RESOURCES

Petroleum and natural gas

C isotope systematics of individual hydrocarbons in hydrothermal petroleum, NE Pacific Ocean 1429–1433
Dissolved organic C in sediment interstitial waters, NE Pacific 1495–1502
He and C gas geochemistry of pore fluids in the hydrothermal system of Escanaba Trough 1457–1466.
Hydrothermal alteration of organic matter in sediments of the NE Pacific Ocean: Part 1 1401–1428
Hydrothermal alteration of organic matter in sediments of the NE Pacific Ocean: Part 2 1467–1494
Kinetic studies of asphaltene pyrolyses and their geochemical applications 1529–1541
Organic geochemistry of oils from southern Cuba 1–10
Origin of CH_4 in quartz crystals from the Tertiary accretionary wedge and fore-arc basin of the Western Carpathians 1259–1271

ENVIRONMENTAL GEOCHEMISTRY

Adsorption of Mo on anatase from dilute solutions 649–656
Assessing mine drainage pH from colour and spectral reflectance of precipitates 1273–1286
Assessment of metal loads in watersheds affected by acid mine drainage 1183–1207
Changes in sorption capacity of coastal plain sediments due to redox alteration of mineral surfaces 387–398
Colloid chemistry of acid rock drainage from an abandoned Zn-Pb-Ag mine 633–648
Comparison between metals released by a 3-step sequential extraction procedure and dilute HCl from soil and road dust 353–367
Contaminant metal dispersion from a disused mine, use of concentration gradients and Pb isotope ratios 1093–1103
Contrasting the geochemistry of oxic sediments across ecosystems 1563–1582
Coprecipitation of trace metals with Fe, Al and Mn in waters contaminated with AMD 569–581
Distribution and origin of Pt group elements in fluvial sediments of the Kentish Stour, UK 1115–1121
Environmental impact of ash management in coal-based power generation 1131–1141
Experimental soil acidification 245–257
Factors contributing to lake salinity, Riske Creek, BC, Canada 605–619
Fine-grained sediments associated with AMD in Fe-Cu mine area 1081–1092
Geochemistry of abandoned Hg mines in Nevada, USA 1069–1079

Geochemistry of agricultural acid sulphate soils in an artificially drained area 1209–1218
Geochemistry of contaminated fjord sediments near a former Pb-Zn mine 493–502
Geological analogue for circumneutral mine tailings: implications for long-term storage 1105–1114
Heavy metal distribution in sediments of the Tietê-Pinheiros River, São Paulo, Brazil 105–116
Hydrological control of Sr in stream water 285–300
Infrared spectroscopic study of As (V) adsorption from mine waters 445–454
Mercury interactions in a simulated Au placer 21–28
Natural and anthropogenic Pb in sediments of the German Bight 621–632
Natural and anthropogenic SO_4 in the Arno River, Tuscany, Italy 79–92
Ozonation of diesel fuel in unsaturated porous media 1165–1170
Properties of Fe oxides in streams draining the Loess Uplands of Mississippi 409–419
Rates of SO_4 reduction and sulphide precipitation in a permeable reactive barrier 301–320
Retention and release of Mn in an organic-rich catchment 1061–1067
Role of sediment composition in trace metal distribution in lake sediments 1171–1181
Sorption of trace metals to an Al precipitate in a stream receiving acid rock drainage 421–430
Spatial and temporal variability of trace elements in an urban subtropical watershed 475–492
Use of fly ash in a geopolymeric material 1143–1148
Use of modified coal ash as a sorbant for organic waste streams 1159–1164
Use of non-radioactive isotopes for studying accumulation of Zn, Cd and Pb in mussels 1351–1360
Use of $^{87}Sr/^{86}Sr$ as an environmental tracer 1543–1550

Diagenesis

Chemical reactions and porosity change during diagenesis 39-47

Geochemical mapping

Baselines of some bioavailable and total heavy metals in Finland 975–980
Distribution of heavy metals and As in soils of Aragón, Spain 961–971
Factor analysis applied to regional geochemical data 185–206

Geochemistry and health

Geochemistry and mineral nutrition of livestock and wildlife 1017–1028
Geochemistry of soil and grass at Shimba Hills National Reserve, Kenya 1003–1016
Oxidation and toxicity of Cr in ultramafic soils in Zimbabwe 981–986
Risk assessment of high Pb loads in soils around Lavrio, Greece 1029–1045

Groundwater

Arsenic and other inorganic constituents in groundwaters of La Pampa, Argentina 259–284
Fluid mixing in carbonate aquifers near Rapolano, Italy 1329–1342
Groundwater geochemistry of a small reservoir catchment in Tunisia 1047–1060

Isotopic and morphological features of fracture calcite from granitic rocks, use in paleohydrogeology 1241–1257
Major ion chemistry of groundwaters in the Continental Terminal water table, SW Niger 1343–1349
Redox-driven changes in porewater chemistry in a chalk aquifer beneath unlined slurry lagoons 903–921
S- and O- isotopes in dissolved SO_4 in the cover rock aquifers of a Zechstein salt dome 1515–1528
Solubility of $MnCO_3$ and $FeCO_3$ in anaerobic aquatic environments 503–511
Trace element distribution in US groundwaters 49–57
Use of SF_6 to label drilling air in unsaturated, fractured rock studies 1361–1370
Water-rock mass transfer in the generation of neutral and high pH spring waters in Genova, Italy 455–474

Radioactive waste disposal

Behaviour of Th, U, Pb and REE in a cryptokarstic halloysite and kaolinite deposit 1313–1328
Conceptual model of controls on water chemistry at Yucca Mountain, Nevada 793–805
Effects of drying on stability of $NaNd(CO_3)_2.6H_2O$ and $NaEu(CO_3)_2.6H_2O$ 1305–1312
Experimental study and modelling of sorption of U (VI) onto olivine 399–408
Geochemistry of rocks at the potential repository level, Yucca Mountain, Nevada 683–698
Geohydrology of Yucca Mountain, Nevada 659–682
Li-sorption to Yucca Mountain tuffs 819–824
Microbial, redox and organic characteristics of compacted clay-based buffer after 6.5 a of burial 1287–1303
Mineralogical heterogeneity in fractured, porous media 699–708
Percolation flux and transport velocity in the unsaturated zone, Yucca Mountain, Nevada 807–817
Physical and stable-isotope evidence for formation of secondary calcite and silica, Yucca Mountain, Nevada 735–750
Retention of humic substances on mineral surfaces and influence on Th mobility 1551–1562
Solubility and sorption of redox-sensitive radionuclides in water from Yucca Mountain 837–853
Tracer and radionuclide sorption to vitric tuffs of Busted Butt, Nevada 825–836
U-Pb ages of secondary silica at Yucca Mountain, Nevada: implications for paleohydrology 709–734
$^{234}U/^{238}U$ evidence for local recharge and groundwater flow, Yucca Mountain, Nevada 751–779
U-series disequilibrium in tuffs at Yucca Mountain, Nevada, evidence of pore fluid flow 781–792

Thermal water

Origin of thermal waters from western Turkey, geochemical constraints 163–183

Waste disposal

Carbonation processes in municipal solid waste incinerator bottom ash, effects on leaching of Cu and Mo 1503–1513
Self-sealing isolation and immobilization, disposal of waste acidic jarosite 93–103

Weathering

Amending highly weathered soils with finely ground basalt 987–1001
Calibration of the Na base cation dominance index for the River Dee, NE Scotland 11–19
Geochemistry and mineralogy of saprolite in Finnish Lapland 885–902
Tropical weathering of the Barama-Mazaruni greenstone belt, Guyana 321–336
Weathering rates calculated from spring water data: a case study 583–603

GENERAL GEOCHEMISTRY

Stability of Mg-Fe chlorites in hydrothermal solutions 1219–1239

Marine

Cyclicity in sediment deposition in the Gotland Basin, Baltic Sea 29–38
Effect of grain size on geochemistry of intertidal sediments 59–68
Organic C burial rates and C—S relationship in coastal sediments of the southern Baltic Sea 337–352
Pyritisation in anoxic fjord sediments 923–933

Mathematical

Outlier-resistant errors-in-variables regression: anomaly recognition 1149–1157

MINERAL RESOURCES

Fluid-rock interaction related to hydrothermal vein mineralisation in the Siegerland district, Germany 225–243
Geochemistry of fluids and sediments: relevance to hydrothermal circulation 1381–1399
Geochemistry of oil inclusions in sulphide-related calcites in a Pb-Zn deposit, Nova Scotia, Canada 69–77
Hydrothermal geochemistry of sediments and pore waters, Escanaba Trough 1435–1456.

Exploration

Enzyme leach soil analysis for epithermal Au exploration 367–385

MODELLING

Assessment of models for estimation of land-derived nitrogen to shallow estuaries 935–953
Geochemical model for removal of Fe (II) (aq) from mine water 431–443
Modelling interaction of bentonite with hyperalkaline fluids 207–223

REVIEWS

Biomass burning—a review of organic tracers for smoke 129–162
Glacier meltwater hydrochemistry 855–883
Review of source, behaviour and distribution of As in natural waters 517–568

OTHER TOPICS

Critical comment

117–121
513–514
1371–1374

Erratum

955–958

Guest editorial

1379

Preface

657
959

Reply to critical comment

123–127
515–516
1375–1378

Aberdares National Park, Kenya 1003
Acid mine drainage 259, 431, 569, 1081, 1273
    interaction with soil 259
    precipitates from 569, 1081, 1273
    sorption of metals by 569
    treatment with reactive barrier 301
    watersheds affected by 1183
Acid rock drainage 633
    colloids in 633
    natural 421
Acid sulphate soils 1209
Aerosols, organic matter in
    anthropogenic 129
    natural 129
Ag
    in estuarine sediment 475
    in groundwater 49, 259
    in jarosite waste 93
    in soil 185, 367
Al
    in acid mine/rock drainage 245, 569, 633, 1081
    in altered wallrock 225
    in cement pore fluid 207
    in chlorite 1219
    in coal mine drainage precipitate 1273
    in colloids 633, 1183
    in estuarine sediment 475
    in fly ash 93, 1143, 1159
    in glacier meltwater 855
    in groundwater 259, 699
    in hydrothermally altered sediments 1381, 1435
    in intertidal sediment 59, 621
    in jarosite waste 93
    in lake sediment 1171
    in marine sediment 621
    in pore water 207, 903
    in reservoir sediment 1047
    in river and stream precipitates 409, 421
    in river and stream sediment 105, 1149
    in river and stream water 409, 421, 1183
    in road sediment 353
    in saprolite 885
    in soil 185, 145, 353, 961, 1047, 1209
    in spring water 455
    in sulphide-rich sediment 1209
    in tuff 683
    in weathered greenstone belt rocks 321
    oxyhydroxides, precipitates in rivers and streams 421
    sorption on sediment grains 387

Alabama, U.S.A. 21
Alaska, U.S.A. 517, 855, 1069, 1259
Alberta, Canada 39
Alps, Switzerland 855, 1259
Am, sorption on tuff 825
Amazon Basin, Brazil 21
Andes, Ecuador 367
Antarctica 855
Antofagasta, Chile 517
Apennines, Italy 79, 1260
Appache Leap, Arizona, U.S.A. 1361
Appalachian Mountains, Canada/U.S.A. 1259
Ar
    in clay buffer 1287
    in groundwater 903
    in spring water gases 455, 1329
Aragón, Spain 961
Argentina 1017
    La Pampa Province 259, 517
Arizona, U.S.A. 517, 1361
Arkansas, U.S.A. 39
Arno River, Italy 79
Arolla, Switzerland 855
As
    human health problems of 259, 517
    in acid mine/rock drainage 633
    in brine 517
    in colloids 633
    in discharge waters from Au mine 445
    in estuarine sediment 475
    in groundwater 49, 259, 517
    in jarosite waste 93
    in lake sediment 1069, 1171
    in lake water 517
    in mine drainage 517
    in pore water 517
    in rain water 517
    in river and stream sediment 1069
    in river and stream water 517
    in rock-forming minerals 517
    in rocks 517
    in sea water 517
    in sediments 517
    in soil 185, 367, 517, 961, 1017
    in tailings dam water 1105
    in thermal water 517
    in till 975
    sorption 517
    by Fe oxyhydroxide 445, 517
    speciation in natural waters 517
    toxicity in animals 1017

Ashanti, Ghana 517
Asphaltene, pyrolysis 1529
Au
    in soil 367
    mineralisation 321, 445, 517
    epithermal, exploration for 367
    placers 21
Australia 1017
    Queensland 987
Ayrshire, Scotland 431

B
    in groundwater 259
    in hydrothermally altered sediments 1435
    in metamorphic rocks 163
    in pore water 903, 1381
    in spring water 1329
    in thermal water 163
^{11}B, in thermal water 163
Ba
    in altered wallrock 225
    in estuarine sediment 475
    in fly ash 93
    in glacier meltwater 855
    in groundwater 49, 259
    in jarosite waste 93
    in intertidal sediment 59
    in lake sediment 1209
    in pore water 903
    in sediments 1313
    in soil 185, 367, 961, 1209
    in sulphide-rich sediment 1209
    in tuff 683
    in weathered greenstone belt rocks 321
Baltic Sea
    coastal lagoons of 337
    Gotland Basin 29
Bangladesh 517
Basin and Range, Arizona, U.S.A. 517
Be
    in groundwater 49, 259
    in soil 185
Belgium 1313
    Mol 1551
Berkshire, England, U.K. 903
Bi
    in groundwater 259
    in intertidal sediment 59
    in lake sediment 1171
    in soil 185, 367

Biomarkers for biomass burning
angiosperms 129
cellulose 129
coal 129
conifers 129
gramineae 129
lignin 129
in sedimentary organic matter 1401, 1467
Biomass burning
biomarkers 129
PAH emissions 129
Organic compounds released 129
Bitumen, in sediments 1401, 1467
Black Angel Mine, Greenland 493
Bohai Bay, China 59
Bohai Bay Basin, China 1529
Bolivia 1017
Bologna, Italy 513, 515
Bowen Island, British Columbia, Canada 517
Br
in groundwater 259, 1047
in marine sediment 29
in pore water 825, 1381, 1435
in reservoir water 1047
in river and stream water 1047
in soil 367
in spring water 1329
in thermal water 163
Brazil 1017
Amazon Basin 21
São Paulo 105
Tietê-Pinheiros River system 105
British Columbia, Canada 517, 605, 1563
Busted Butte, Nevada, U.S.A. 825

C
in coastal sediments, rates of accumulation 337
in fiord sediment 493, 923
in groundwater 1551
in hydrothermally altered sediments 1435
in pore water 207, 1495
in river and stream precipitates 409, 421
in sea water 1495
in sulphide-rich sediment 1209
^{13}C
in atmosphere 1361
in bore hole gas 1361
in calcite 735, 1241
in fluid inclusion hydrocarbons 69, 1259
in groundwater 259, 1241

in hydrocarbons 1429
in hydrothermal petroleum 1429
in hydrothermal water 1457
in limestone 69
in pore water 1457
in soil air 1361
in spring water gases 1329
^{14}C
dating
of groundwater 259, 1241
of marine sediment 29
for determination of groundwater residence time 807
for estimation of transport velocity and percolation flux of groundwater 807
in CO_2 807
in stream water 1361
Ca
in acid mine/rock drainage 245, 569, 633, 1081
in altered wallrock 225
in cement pore fluid 207
in chlorite 1219
in colloids 633
in estuarine sediment 475
in fertilizer 583
in fiord sediment 493
in fly ash 93, 1143, 1159
in glacier meltwater 855
in grass 1003
in groundwater 259, 793, 837, 903, 1047, 1343
in hydrothermally altered sediments 1381, 1435
in intertidal sediment 59
in jarosite waste 93
in lake water 605
in marine sediment 29
in pore water 207, 605, 793, 825, 903, 1381
in precipitation 793
in reservoir sediment 1047
in reservoir water 1047
in river and stream precipitates 421
in river and stream sediment 105
in river and stream water 11, 79, 285, 409, 421, 793, 1047, 1183
in saprolite 885
in soil 185, 245, 981, 987, 1003, 1209
in spring water 583, 1329
in sulphide-rich sediment 1209
in thermal water 163
in tuff 683
in weathered greenstone belt rocks 321
California, U.S.A. 517, 1069
Canada 855
Alberta 39
British Columbia 517, 605, 1563

Fraser River 1563
Nova Scotia 69
Ontario 301, 517, 1171, 1563
Quebec 1259
Cape Breton Island, Nova Scotia, Canada 69
Cape Cod, Massachusetts, U.S.A. 935
Carbon Preference Index (CPI), for sedimentary bitumens 1401, 1435, 1467
Caribbean Basin 1
Carlow, Ireland 1017
Carpathian Mountains, Poland/Ukraine 1259
Carson Desert, Nevada 517
Carson River, Nevada 1069
Cd
accumulation in *Mytilus galloprovincialis* 1351
in acid mine/rock drainage 569, 633
in colloids 633
in estuarine sediment 475, 1563
in groundwater 259
in lake sediment 1171, 1563
in pore water 903
in river and stream precipitates 421
in river and stream sediment 105
in river and stream water 421, 1183
in soil 185, 961
in spring water 455
in till 975
toxicity in animals 1017
$^{111}Cd/^{114}Cd$, for assessing biological uptake 1351
Ce
in acid mine/rock drainage 633
in fly ash 93
in groundwater 259
in intertidal sediment 59
in oxyhydroxide 1313
in pore water 825
in sediments 1313
in soil 185, 367
in tuff 683
in weathered greenstone belt rocks 321
Cement Creek, Colorado, U.S.A. 1183
Chlorite stability, in hydrothermal solutions 1219
CH_4
in clay buffer 1287
in fluid inclusions 1259
in groundwater 903
in hydrothermal water 1457
in pore water 1381, 1435, 1457
in spring water gases 455, 1329
Chile, Antofagasta 517
China
Bohai Bay 59

Bohai Bay Basin 1529
Inner Mongolia 517
Shanxi Province 517
Taiwan 517
Tarim Basin 1529
Tuha Basin 1529
Xinjiang Province 517
Cl
in acid mine/rock drainage 633, 1081
in fertilizer 583
in glacier meltwater 855
in groundwater 259, 301, 793, 903, 1047, 1343, 1515
in pore water 207, 793, 825, 903, 1381, 1435, 1457
in precipitation 793
in reservoir water 1047
in river and stream water 79, 1047, 1183
in soil 367
in spring water 455, 583, 1329
in thermal water 163
in tuff 683
^{36}Cl, in pore water 781
Clear Lake, California 1069
Co
deficiency in animals 1017
in acid mine/rock drainage 569, 633
in altered wallrock 225
in estuarine sediment 475
in fiord sediment 923
in glacier meltwater 855
in grass 1003
in groundwater 49, 259
in intertidal sediment 59
in lake sediment 1171
in oxyhydroxide 1313
in pore water 825, 903
in river and stream precipitates 421
in river and stream water 421
in road sediment 353
in sediments 1313
in soil 353, 367, 961, 1003, 1209
in sulphide-rich sediment 1209
in till 975
sorption on tuff 825
CO_2
in bore hole gas 1361
in clay buffer 1287
in groundwater 903
in hydrothermal water 1457
in pore water 39, 1457
in spring water 1329
in spring water gases 1329

in thermal water 163
sequestration, during glaciation 855
Coal mine drainage
ferruginous waters 431
precipitates in, spectral reflectance 1273
Coeur d'Alene, Idaho, U.S.A. 517
Colombia 1017
Colorado, U.S.A. 421, 1183
Continental Terminal water table, Niger 1343
Cornwall, England, U.K. 1017
Costa Rica 1017
Cr
in acid mine/rock drainage 633
in altered wallrock 225
in chlorite 1219
in estuarine sediment 475
in fiord sediment 923
in fly ash 93, 1143
in groundwater 49, 259
in intertidal sediment 59
in lake sediment 1171
in pore water 903
in river and stream precipitates 421
in river and stream sediment 105
in river and stream water 421
in saprolite 885
in sediments 1313
in soil 185, 961, 981, 1209
in sulphide-rich sediment 1209
in till 975
toxicity, to plants 981
Cristales oilfield, Cuba 1
Critical comment 117, 513, 1371
Critical load 11
Cs
in intertidal sediment 59
in weathered greenstone belt rocks 321
^{137}Cs
dating of fiord sediment 493
dating of marine sediment 29
Cu
deficiency in animals, Mo-induced 1017
in acid mine/rock drainage 569, 633, 1081
in chlorite 1219
in colloids 633, 1183
in estuarine sediment 475, 1563
in fiord sediment 493, 923
in fly ash 93, 1143
in glacier meltwater 855
in grass 1003
in groundwater 49, 259

in intertidal sediment 59
in jarosite waste 93
in lake sediment 1171, 1563
in marine sediment 29
in pore water 903
in river and stream precipitates 421
in river and stream sediment 105, 475
in river and stream water 421, 1183
in road sediment 353
in soil 185, 353, 367, 475, 961, 1003, 1017, 1209
in sulphide-rich sediment 1209
in till 975
leached from municipal solid waste bottom ash 1503
Cuba 1017
Cristales oilfield 1
Jatibonico oilfield 1
Pina oilfield 1

D
Danube Basin, Hungary/Romania 517
Devon, England, U.K. 1017
Diagenesis 39
Dominican Republic 1017
Ducktown, Tennessee, U.S.A. 569
Dunarobba, Umbria, Italy 1543
Dy
in groundwater 259
in intertidal sediment 59
in sediments 1313

E
East Kilbride, Scotland 1123
Ecuador 1017
Andes 367
Editorial, guest 1379
El Salvador 1017
England, U.K.
Berkshire 903
Cornwall 1017
Devon 1017
Essex 1017
Kent 1115
London Basin 903
Norfolk 1017
Suffolk 1017
Wiltshire 903
Enzyme leach, of soils for Au exploration 367
Er
in groundwater 259

in intertidal sediment 59
in sediments 1313
Erratum 955
Escanaba Trough, Pacific Ocean 1435, 1457, 1467, 1495
Essex, England, U.K. 1017
Estonia 1149
Ethiopia 1017
Eu
in groundwater 259
in intertidal sediment 59
in sediments 1313
in soil 185
in weathered greenstone belt rocks 321
Eutrophication, of coastal waters 337
Extraction of metals, from road sediment and soil with dilute HCl 353

F
in groundwater 259, 1047
in pore water 825, 1435
in precipitation 793
in reservoir water 1047
in river and stream water 1047
in spring water 1329
in thermal water 163
in tuff 683
Factor analysis, applied to geochemical data 185
Fairbanks, Alaska, U.S.A. 517
Fanay-Augères, France 1551
Fe
in acid mine/rock drainage 245, 569, 633, 1081
in altered wallrock 225
in chlorite 1219
in coal mine drainage 431
in coal mine drainage precipitate 1273
in colloids 633, 1183
in estuarine sediment 475
in fiord sediment 493, 923
in fly ash 93, 1143, 1159
in glacier meltwater 855
in groundwater 259, 301, 387, 837
in intertidal sediment 59, 621
in jarosite waste 93
in lake sediment 1171
in marine sediment 29, 621
in oxyhydroxide 1313
in peat 1061
in pore water 825, 903
in reservoir sediment 1047
in river and stream precipitates 409, 421
in river and stream sediment 105

in river and stream water 409, 421, 1061, 1183
in road sediment 353
in saprolite 885
in soil 185, 353, 961, 1047, 1209
in spring water 455
in sulphide-rich sediment 1209
in tuff 683
in weathered greenstone belt rocks 321
oxyhydroxide, coatings on sediment grains 387
precipitates in rivers and streams 409, 421
precipitation from mine drainage 431, 569
sorption of As 445
sorption of metals 569
removal from coal mine drainage 431
sorption on sediment grains 387
Fe(II), modelling geochemistry of oxidation, in mine water 431
Fertilizer application, influence on spring water chemistry 583
Finland 185, 975
Lapland 885
Lovasjärvi intrusion 399
Rintala area 1209
Fiord sediment
anoxic, pyritization in 923
contamination with mine tailings 495
Florence, Italy 79
Fluid inclusions
hydrocarbons in 69
in calcite 69
Fly ash
as sorbent 1143
disposal 93, 1131, 1143, 1159
use in geopolymeric material 1143
France 855
Fanay-Augères 1551
Montpellier 1351
Paris Basin 39
Soulaine 1551
Vosges Mountains 285
Fraser River, British Columbia, Canada 1563
Freiberg, Germany 633
Frisian Islands, Germany 621

G
Ga
in altered wallrock 225
in chlorite 1219
in groundwater 259
in intertidal sediment 59
in soil 367
in weathered greenstone belt rocks 321

Galloway, Scotland 1061
Gd
    in groundwater 259
    in intertidal sediment 59
    in sediments 1313
Ge, in groundwater 259
Genova Province, Italy 455
Geochemical exploration 367
Geochemical mapping 185, 961, 1017
Geochemistry and health
    As and human health 259, 517
    livestock 1017
    wildlife 1003, 1017
Geothermal energy 163
    environmental problems 163
German Bight, North Sea 621
Germany 621
    Freiberg 633
    Frisian Islands 621
    Gorleben 1515, 1551
    Northern Bavaria 517
    Siegerland district 225
Ghana1017
    Ashanti 517
Glacier hydrology 855
Glacier meltwater, chemistry of 855
Gorleben, Germany 1515, 1551
Gotland Basin, Baltic Sea 29
Great Basin, U.S.A. 659
Greece, 517, 1029
Greenland, Black Angel Mine 493
Grimsel, Switzerland 1551
Groundwater 49, 387, 659, 751, 781, 837, 935, 1047, 1329, 1343, 1361, 1543
    anaerobic 503
    contamination, by cattle slurry 903
    contamination by organics, remediation with ozone 1165
    evolution 259, 793, 1241
    flow 699
    residence time 807
    salinity 1515
    source of As in 259, 517
    transport velocity and percolation flux 807
    within reactive barrier 301
    Guatemala 1017
    Guiana Shield 321
    Gulf Coast, Arkansas, U.S.A. 39
    Gulf Coast, Texas, U.S.A. 39
    Gulf of Finland 1149
    Guyamas Basin, Pacific Ocean 1457
    Guyana 321, 1017
    Gwynedd, Wales, U.K. 1017

H
H_2
in clay buffer 1287
in spring water gases 1329
^2H
in groundwater 259, 1047, 1241
in hydrothermal fluid 1381
in pore water 1381
in reservoir water 1047
in river and stream water 1047
in spring water 455, 1329
in thermal water 163
^3H, in groundwater 259, 1241
Haiti 1017
Hawaii, U.S.A. 353, 475
HCO_3
in acid mine drainage 1081
in glacier meltwater 855
in groundwater 259, 793, 903, 1047, 1343
in pore water 793, 825
in precipitation 793
in reservoir water 1047
in river and stream water 79, 793, 1047
in spring water 583, 1329
in tailings dam water 1105
in thermal water 163
He
in hydrothermal water 1457
in pore water 1457
in spring water gases 1329
^3He
in hydrothermal water 1457
in pore water 1457
in spring water 1329
in thermal water 163
Hf
in sediments 1313
in soil 185
in weathered greenstone belt rocks 321
Hg
in Au placers 21
in calcines 1069
in groundwater 49
in lake sediment 1069, 1171
in ore 1069
in river and stream sediment 1069
in river and stream water 21, 1069
in soil 961
release from amalgam 21
volatilisation 21

Ho
in groundwater 259
in intertidal sediment 59
in sediments 1313
Honduras 1017
Honolulu, Hawaii, U.S.A. 353, 475
H_2S
in clay buffer 1287
in spring water gases 1329
Humboldt River, Nevada, U.S.A. 1069
Hungary, Danube Basin 517
Hydrocarbons
generation from asphaltene 1529
hydrothermal 1381, 1435, 1457, 1467
in fluid inclusions 69
in hydrothermal water 1457
in mineral deposits 225
in pore water 1457

I
in groundwater 259
in pore water 1381, 1435
in soil 367
Iceland 855
Idaho, U.S.A. 517
Idrija, Slovenia 1069
India 1017
West Bengal 517
Indonesia 1017
Ir
in river sediment 1115
in road sediment 1115
in sedimentary rocks 1115
Ireland (Eire)
Carlow 1017
Wicklow 1017
Isotope dilution ICP-MS, for determination of Pt
Isotopes
B 163
C 29, 69, 259, 735, 807, 1241, 1259, 1329, 1361, 1429, 1457
Cd 1351
Cs 29, 493
H 163, 259, 455, 1047, 1241, 1329, 1381
He 163, 1329, 1457
O 163, 259, 455, 735, 903, 1047, 1241, 1329, 1381, 1515
Pb 29, 493, 621, 709, 1093, 1351
Ra 781
S 79, 259, 513, 515, 903, 1381, 1515
Sr 163, 285, 1381, 1435, 1543
Th 709, 781

U 709, 751, 781
Zn 1351
Isotopic tracers, for assessing metal contamination 1351
Italy
Apennines 79, 1259
Arno River 79
Bologna 513, 515
Florence 79
Genova Province 455
Liguria 1081
Pisa 79
Siena Basin 1329
Tiber Basin 1543
Tuscany 79
Tyrrhenian Sea 69
Umbria 1543

J
Japan
Shimanto 1259
Tono area 1241
Jarosite waste, disposal 93
Jatibonico oilfield, Cuba 1
Juan de Fuca Ridge, NE Pacific Ocean 1381, 1401, 1429, 1457, 1495

K
K
in acid mine/rock drainage 245, 569, 633, 1081
in altered wallrock 225
in cement pore fluid 207
in fertilizer 583
in fiord sediment 493
in fly ash 93, 1143
in glacier meltwater 855
in grass 1003
in groundwater 259, 699, 837, 903, 1047, 1343
in hydrothermally altered sediments 1381, 1435
in intertidal sediment 59, 621
in jarosite waste 93
in lake sediment 1171
in lake water 605
in marine sediment 29, 621
in pore water 207, 605, 825, 903, 1381
in precipitation 793
in reservoir sediment 1047
in reservoir water 1047
in river and stream precipitates 421
in river and stream water 79, 285, 409, 421, 1047
in saprolite 885

in soil 185, 245, 987, 1003, 10471209,
in spring water 455, 583, 1329
in sulphide-rich sediment 1209
in thermal water 163
in tuff 683
in weathered greenstone belt rocks 321
Kent, England, U.K. 1115
Kenya 1003, 1017
Kerogene 1529
Kodiak, Alaska, U.S.A. 1259
Kola Peninsula, Russia 185

L
La
in acid mine/rock drainage 633
in groundwater 259
in intertidal sediment 59
in lake sediment 1171
in sediments 1313
in soil 185, 367, 1029
in sulphide-rich sediment 1209
in tuff 683
in weathered greenstone belt rocks 321
Lagunera, Mexico 517
Lake Nakuru National Park, Kenya 1003
Lake Oahe, South Dakota, U.S.A. 517
Lapland, Finland 885
La Pampa Province, Argentina 259, 517
Lavrion, Greece 517, 1029
Leuggern, Switzerland 1551
Li
in acid mine/rock drainage 633
in fly ash 93
in groundwater 259, 837
in hydrothermally altered sediments 1435
in intertidal sediment 59
in pore water 825, 1381
in river and stream water 1183
in soil 185
in spring water 1329
in thermal water 163
sorption on tuff 819, 825
Liguria, Italy 1081
Loch Braden, Galloway, Scotland 1061
Loch Tay, Scotland 1093
Loess, in Mississippi uplands 409
London Basin, England, U.K. 903
Lovasjärvi intrusion, Finland 399
Lu
in groundwater 259

in intertidal sediment 59
in sediments 1313
in soil 185
in weathered greenstone belt rocks 321

M
Macraes Au mine, Otago, New Zealand 445, 1105
Madison aquifer, Montana, South Dakota and Wyoming, U.S.A. 39
Malawi 1017
Malaysia 1017
Massachusetts, U.S.A. 935
Menderes Massif, Turkey 163
Metal loads, in watersheds affected by acid mine drainage 1183
Mexico 1017
Lagunera 517
Mg
in acid mine/rock drainage 245, 569, 633, 1081
in altered wallrock 225
in chlorite 1219
in colloids 633
in estuarine sediment 475
in fertilizer 583
in fly ash 93, 1143, 1159
in glacier meltwater 855
in grass 1003
in groundwater 259, 837, 903, 1047, 1343
in hydrothermally altered sediments 1435
in intertidal sediment 59
in jarosite waste 93
in lake sediment 1171
in lake water 605
in pore water 207, 605, 825, 903, 1381
in precipitation 793
in reservoir sediment 1047
in reservoir water 1047
in river and stream precipitates 421
in river and stream water 11, 79, 285, 409, 421, 1047, 1183
in saprolite 885
in soil 185, 245, 981, 987, 1003, 1047, 1209
in spring water 455, 583, 1329
in sulphide-rich sediment 1209
in thermal water 163
in tuff 683
in weathered greenstone belt rocks 321
Mineralisation
Au 321, 367, 445, 517, 1105
Fe-Cu 1081
Hg 1069
massive sulphide 1381, 1435, 1467, 1495
Ni 301

Pb-Ag 1029
Pb-Zn 69, 475, 1093
Pb-Zn-Ag 633
Pb-Zn-Sb 225
Mining, environmental contamination from 421, 493,517, 569, 633, 1029, 1069, 1081, 1093
Mississippi, U.S.A. 409
Mn
in acid mine/rock drainage 569, 633
in altered wallrock 225
in chlorite 1219
in coal mine drainage precipitate 1273
in estuarine sediment 475
in fiord sediment 493, 923
in fly ash 93, 1143
in glacier meltwater 855
in grass 1003
in groundwater 259, 837
in intertidal sediment 621
in jarosite waste 93
in lake sediment 1171
in marine sediment 29, 621
in peat 1061
in pore water 825, 903
in reservoir sediment 1047
in river and stream precipitates 409, 421
in river and stream sediment 105
in river and stream water 409, 421,1061, 1183
in road sediment 353
in saprolite 885
in sediments 1313
in soil 185, 353, 367, 961, 981, 1003, 1047, 1209
in sulphide-rich sediment 1209
in tuff 683
in weathered greenstone belt rocks 321
oxyhydroxides, sorption of metals by 569
release from organic soils 1061
sorption on tuff 825
Mo
adsorption on anatase 649
in fiord sediment 923
in grass 1003
in groundwater 259
in intertidal sediment 59
in jarosite waste 93
in lake sediment 1171
in marine sediment 29
in pore water 903
in river and stream precipitates 421
in soil 367, 1003
leached from municipal solid waste bottom ash 1503
toxicity in animals 1017

Modelling
environmental impact of disposal of fly ash 1131
for estimation of N loads to estuaries 935
geochemistry of Fe(II) oxidation, in mine water 431
hydraulic processes 39
interaction of bentonite with hyperalkaline fluid 207
PROFILE model 117, 123
waste disposal 93
Moira Lake, Ontario, Canada 517
Mol, Belgium 1551
Montana, U.S.A. 39
Montpellier, France 1351
Morais Massif, Portugal 583
Municipal solid waste bottom ash, interaction with CO_2 1503
Muskoka region, Ontario, Canada 1171
Mussels, for monitoring the marine environment 1351
Mytilus galloprovincialis heavy metal accumulation in 1351

N
N, load in shallow estuaries 935
N_2
in clay buffer 1287
in groundwater 903
in spring water gases 455, 1329
Na
in acid mine/rock drainage 245, 569, 633, 1081
in altered wallrock 225
in cement pore fluid 207
in fertilizer 583
in fly ash 93, 1143, 1159
in glacier meltwater 855
in grass 1003
in groundwater 259, 699, 793, 837, 903, 1047, 1343
in intertidal sediment 59
in jarosite waste 93
in lake sediment 1171
in lake water 605
in pore water 207, 605, 793, 825, 903, 1381
in precipitation 793
in reservoir sediment 1047
in reservoir water 1047
in river and stream precipitates 421
in river and stream water 11, 79, 285, 409, 421, 793, 1047, 1183
in saprolite 885
in soil 185, 245, 987, 1003, 1047, 1209
in spring water 455, 583, 1329
in sulphide-rich sediment 1209
in thermal water 163
in tuff 683
in weathered greenstone belt rocks 321

$NaEu(CO_3)_2.6H_2O$, stability 1305
$NaNd(CO_3)_2.6H_2O$, stability 1305
Nb
in altered wallrock 225
in chlorite 1219
in intertidal sediment 59
in sediments 1313
in tuff 683
in weathered greenstone belt rocks 321
Nd
in groundwater 259
in intertidal sediment 59
in sediments 1313
in soil 185
Ne, in spring water gases 1329
Nevada, U.S.A. 517, 659, 683, 699, 709, 735, 751, 781, 793, 807, 819, 825, 837, 955, 1069, 1551
New Zealand 1017
Otago 445, 1105
NH_4
in fertilizer 583
in groundwater 259, 387
in jarosite waste 93
in pore water 903, 1381, 1435
in spring water 1329
Ni
in acid mine/rock drainage 569, 633
in altered wallrock 225
in chlorite 1219
in estuarine sediment 475
in fiord sediment 493, 923
in fly ash 93, 1143
in glacier meltwater 855
in grass 1003
in groundwater 49, 259
in intertidal sediment 59
in lake sediment 1171
in pore water 825
in river and stream precipitates 421
in river and stream sediment 105, 1149
in river and stream water 421
in road sediment 353
in saprolite 885
in sediments 1313
in soil 185, 353, 367, 961, 981, 1209
in sulphide-rich sediment 1209
in till 975
sorption on tuff 825
Niger 1343
N_2O, in groundwater 903
NO_2, in groundwater 259

NO_3
in acid mine/rock drainage 633
in fertilizer 583
in glacier meltwater 855
in groundwater 259, 387, 903, 1047, 1343
in pore water 825, 903
in precipitation 793
in reservoir water 1047
in river and stream water 1047
in spring water 583, 1329
Nordåsvannet fiord, Norway 923
Norfolk, England, U.K. 1017
North Carolina, U.S.A. 21
North Sea
German Bight 621
Norway 39
Northern Bavaria, Germany 517
Norway 185, 855
Nordåsvannet fiord 923
North Sea 39
Svalbard 855
Nova Scotia, Canada 69
Np
solubility 837
sorption 837
on tuff 825
Nuclear waste
disposal 207, 649, 1287, 1543, 1551
repository 399, 659, 683, 699, 709, 735, 751, 781, 793, 807, 819, 825, 837, 1387
clay buffer
microbes in 1287
organics in 1287
natural analogue 1313

O
O_2
in clay buffer 1287
in groundwater 903
in spring water gases 1329
^{18}O
in cacite 735, 1241
in groundwater 259, 1047, 1241, 1515
in hydrothermal fluid 1381
in pore water 903, 1381
in reservoir water 1047
in river and stream water 1047
in spring water 455, 1329
in thermal water 163
Ocean Drilling Project 1381, 1401, 1429, 1435, 1457, 1467, 1495
Oil
inclusions in calcite 69

in fluid inclusions, maturity 1371, 1375
organic geochemistry of 1, 69
origins of 1
Okinawa Trough, Pacific Ocean 1457
Omai Au mine, Guyana 321
Ontario, Canada 301, 517, 1171, 1563
Otago, New Zealand 445, 1105
Ozone, to remediate organic contamination of groundwater 1165

P
P
in altered wallrock 225
in chlorite 1219
in fertilizer 583
in fly ash 93, 1143
in grass 1003
in groundwater 259
in intertidal sediment 59
in jarosite waste 93
in pore water 825, 903, 1435
in reservoir sediment 1047
in river and stream precipitates 409
in river and stream water 409
in saprolite 885
in soil 185, 987, 1003, 1047, 1209
in sulphide-rich sediment 1209
in tuff 683
in weathered greenstone belt rocks 321
Pacific Ocean
Escanaba Trough 1435, 1457,1467, 1495
Guyamas Basin 1457
Juan de Fuca Ridge 1381, 1401, 1429, 1457, 1495
Okinawa Trough 1457
PAH, from biomass burning 129
Palawan, Phillipines 1069
Pampean aquifer, La Pampa Province, Argentina 259, 517
Panama 1017
Paris Basin, France 39
Patani aquifer, Thailand 39
Pb
accumulation in *Mytilus galloprovincialis* 1351
anthropogenic, in tidal flats 621
behaviour during weathering 1313
health risk for humans from exposure 1029
in acid mine/rock drainage 569, 633
in altered wallrock 225
in chlorite 1219
in colloids 633
in estuarine sediment 475
in fiord sediment 493, 923

in glacier meltwater 855
in groundwater 49, 259
in intertidal sediment 59, 621
in jarosite waste 93
in lake sediment 1069, 1171
in marine sediment 621
in mine waste 1093
in oxyhydroxide 1313
in river and stream precipitates 421
in river and stream sediment 105, 475, 1069, 1093, 1149
in river and stream water 421
in road sediment 353
in pore water 903
in sediment 1313
in silica 709
in soil 185, 353, 367, 475, 961, 1029
in till 975
toxicity in animals 1017
^{206}Pb
in coal 1093
in fiord sediment 493
in intertidal sediment 621
in marine sediment 621
in mine waste 1093
in river sediment 1093
in petrol 1093
in silica 709
^{207}Pb
in coal 1093
in fiord sediment 493
in intertidal sediment 621
in marine sediment 621
in mine waste 1093
in river sediment 1093
in peat 1093
in petrol 1093
in silica 709
$^{207}Pb/^{206}Pb$, for assessing biological uptake 1351
^{208}Pb
in fiord sediment 493
in mine waste 1093
in river sediment 1093
in petrol 1093
in silica 709
^{210}Pb
dating of fiord sediment 493
dating of marine sediment 29
dating of peat 1093
Pd
in river sediment 1115
in road sediment 1115

in sedimentary rocks 1115
Pennsylvania, U.S.A. 1273
Peru 1017
Petroleum, hydrothermal 1381, 1401, 1429, 1457, 1467
Philippines 1017, 1069
Pina oilfield, Cuba 1
Pisa, Italy 79
Platinum Group Elements
from catalytic converters 1115, 1123
contamination of river and stream sediment 1115
contamination of soils 1123
contamination of urban environment 1115, 1123
Poland, Carpathian Mountains 1259
Pore water 935
contamination, by cattle slurry 903
evolution 793
speciation in 39
Porosity 39
Portugal, Morais Massif 583
Pr
in groundwater 259
in intertidal sediment 59
in sediments 1313
Preface 657, 959
Pt
in river sediment 1115
in road sediment 1115, 1123
in sedimentary rocks 1115
Pu
aqueous transport 837
solubility 837
sorption 837
on tuff 825
speciation 837
Pyramid Lake, Nevada 1069
Pyritization, in anoxic sediments 923

Q
Queensland, Australia 987

R
^{226}Ra, in tuff 781
Rapolano, Siena Basin, Italy 1329
Rare Earth Elements, behaviour during weathering 1313
Rb
in altered wallrock 225
in chlorite 1219
in fiord sediment 493
in glacier meltwater 855

in groundwater 259
in intertidal sediment 59
in lake sediment 1543
in marine sediment 29
in pore water 903
in river and stream precipitates 421
in river and stream water 421
in sediments 1313
in soil 367
in tuff 683
in weathered greenstone belt rocks 321
Reactive barrier, to treat acid mine drainage 301
Red River Delta, Vietnam 517
Regression analysis 1149
Reply to critical comment 123, 515, 1375
Review 129, 517, 855
Rh
in river sediment 1115
in road sediment 1115
in sedimentary rocks 1115
Rhodochrosite ($MnCO_3$), solubility 503
Rintala area, Finland 1209
Risk assessment, of high Pb in soils 1029
Riske Creek region, British Columbia, Canada 605
River Ayr, Scotland, U.K. 431
River Dee, Scotland, U.K. 11
Romania, Danube Basin 517
Ron Phibun, Thailand 517
Ru
in river sediment 1115
in road sediment 1115
in sedimentary rocks 1115
Russia 185, 1017
Kola Peninsula 185

S
S
in coastal sediments, rates of accumulation 337
in fiord sediment 923
in fly ash 93
in jarosite waste 93
in pore water 207
in river and stream precipitates 409
in soil 185, 1209
in spring water 455
in sulphide-rich sediment 1209
in tuff 683
^{34}S
in groundwater 259, 1515
in hydrothermal fluid 1381

in pore water 903, 1381
in river water 79
Salinity, of lakes, controls on 605
Salisbury, Wiltshire, England, U.K. 903
Salt dome, Gorleben, Germany 1515
Salton Sea Basin, U.S.A. 517
San Joaquin Valley, California, U.S.A. 517
São Paulo, Brazil 105
Saprolite
fossil 885
mineralogy of 885
Saudi Arabia 1017
Sb
in groundwater 49, 259
in jarosite 93
in lake sediment 1069, 1209
in river and stream sediment 1069
in soil 367, 961
Sc
in altered wallrock 225
in chlorite 1219
in intertidal sediment 59
in soil 185
Scotland, U.K. 1123
Ayrshire 431
East Kilbride 1123
Galloway 1061
River Ayr 431
River Dee 11
Se
deficiency in animals 1017
in grass 1003
in groundwater 49, 259
in lake sediment 1171
in soil 367, 1003
Senegal 1017
Sequential extraction
of river sediment 105
of road sediment 353
of soil 353
SF_6, for labelling drilling air 1361
Shimanto, Japan 1259
Shimba Hills National Reserve, Kenya 1003
Si
in acid mine/rock drainage 633
in altered wallrock 225
in cement pore fluids 207
in chlorite 1219
in coal mine drainage precipitate 1273
in colloids 633
in fly ash 93, 1143

in groundwater 259, 699, 793, 1047
in jarosite waste 93
in pore water 207, 793, 825, 923, 1381
in precipitation 793
in reservoir sediment 1047
in reservoir water 1047
in river and stream precipitates 409
in river and stream water 285, 409, 793, 1047, 1183
in saprolite 885
in soil 185, 1047
in spring water 455, 583, 1329
in tuff 683
in weathered greenstone belt rocks 321
Siderite ($FeCO_3$), solubility 503
Siegerland district, Germany 225
Siena Basin, Italy 1329
Sierra Leone 1017
Slovakia, Šobov 245
Slovenia 1069
Sm
in groundwater 259
in intertidal sediment 59
in pore water 825
in sediments 1313
in soil 185
in weathered greenstone belt rocks 321
Smoke
long range transport 129
organic tracers in 129
Sn
in groundwater 49
in intertidal sediment 59
in soil 961
Snake River, Summit County, Colorado, U.S.A. 421
SO_4
in acid mine/rock drainage 245, 569, 633, 1081
in coal mine drainage 1273
in coal mine drainage precipitate 1273
in fertilizer 583
in glacier meltwater 855
in groundwater 259, 301, 387, 793, 903, 1047, 1343, 1515
in hydrothermally altered sediments 1381, 1435
in reservoir water 1047
in river and stream precipitates 421
in river and stream water 11, 79, 421, 793, 1047, 1183
in pore water 793, 825, 903, 1381, 1435
in precipitation 793
in spring water 455, 583, 1329
in tailings dam water 1105
in thermal water 163
sorption on sediment grains 387

Šobov, Slovakia 245
Soil amendment, with basalt 987
Soulaine, France 1551
South Africa 1017, 1143, 1159
South Dakota, U.S.A. 39, 517
Spain, Aragón 961
Spreading centre, hydrothermal systems 1381, 1435, 1457
    alteration of sediments in 1381, 1435
Spring water
    organics in 1343
    origin of 455, 1343
Sr
    in altered wallrock 225
    in chlorite 1219
    in fertilizer 583
    in fly ash 93
    in glacier meltwater 855
    in groundwater 259
    in hydrothermally altered sediments 1435
    in intertidal sediment 59
    in lake sediment 1171, 1543
    in marine sediment 29
    in pore water 825, 923
    in river and stream precipitates 421
    in river and stream water 285, 421, 1183
    in sediments 1313
    in soil 185, 367, 1209
    in sulphide-rich sediment 1209
    in thermal water 163
    in tuff 683
    in weathered greenstone belt rocks 321
^{87}Sr
    in hydrothermally altered sediments 1435
    in hydrothermal fluid 1381
    in lake sediment 1543
    in pore water 1381, 1435
    in river and stream water 285
    in thermal water 163
    in soil 285
Stripa, Sweden 1551
Sudan 1017
Sudbury, Ontario, Canada 301
Suffolk, England, U.K. 1017
Surinam 1017
Svalbard, Norway 855
Swaziland 1017
Sweden, Stripa 1551
Switzerland
    Alps 855, 1259
    Grimsel 1551
    Leuggern 1551

Zurzach 1551

T
Ta
in intertidal sediment 59
in sediments 1313
Tailings, long term storage 1105
Tanzania 1017
Tarim Basin, China 1529
Tb
in groundwater 259
in intertidal sediment 59
in weathered greenstone belt rocks 321
Tennessee, U.S.A. 569
Texas, U.S.A. 39
Th
in acid mine/rock drainage 633
in altered wallrock 225
in groundwater 259
in intertidal sediment 59
in lake sediment 1171
in silica 709
in soil 185, 1209
in sulphide-rich sediment 1209
in tuff 781
in weathered greenstone belt rocks 321
sorption onto Fe oxides 1551
^{230}Th
in silica 709
in tuff 781
Thailand
Potani aquifer 39
Ron Phibun 517
Thau Lake, Montpellier, France 1351
Thermal water, origin of 163
Thiobacillus ferroxidans, in oxidation of Fe in ferruginous mine waters 431
Ti
behaviour during weathering 1313
in altered wallrock 225
in chlorite 1219
in fly ash 93, 1143
in glacier meltwater 855
in hydrothermally altered sediments 1435
in intertidal sediment 59
in jarosite waste 93
in lake sediment 1171
in marine sediment 29
in reservoir sediment 1047
in saprolite 885
in sediments 1313

in soil 185, 1047, 1209
in sulphide-rich sediment 1209
in tuff 683
in weathered greenstone belt rocks 321
Tiber Basin, Umbria, Italy 1543
Tietê-Pinheiros River system, Brazil 105
Tl
in groundwater 49, 259
in lake sediment 1171
Tm
in groundwater 259
in intertidal sediment 59
Tono area, Japan 1241
Trinidad 1017
Truckee River, Nevada 1069
Tuha Basin, China 1529
Tunisia 1047
Turkey, Menderes Massif 163
Tuscany, Italy 79
Tyrrhenian Sea, Italy 79

U
U
behaviour during weathering 1313
contamination, from fertiliser 903
in acid mine/rock drainage 633
in colloids 633
in estuarine sediment 475
in glacier meltwater 855
in groundwater 259, 751
in intertidal sediment 59
in pore water 903
in sediments 1313
in silica 709
in tuff 781
possible migration from waste repository 399
sorption on olivine 399
^{234}U
in groundwater 751
in silica 709
in tuff 781
U/Pb, dating of silica 709
U-series disequilibria, in tuff 781
Ukraine, Carpathian Mountains 1259
Umbria, Italy 1543
United Kingdom
England 903, 1017, 1115
Scotland 11, 431, 1123
Wales 1017
Uruguay 1017

Urban pollution 105, 353, 475, 1115, 1123
U.S.A. 49
Alabama 21
Alaska 517, 855, 1069, 1259
Appalachian Mountains 1259
Arizona 517, 1361
Arkansas 39
California 517, 1069
Colorado 421, 1183
Hawaii 353, 475
Idaho 517
Massachusetts 935
Mississippi 409
Montana 39
Nevada 517, 659, 683, 699, 709, 735, 751, 781, 793, 807, 819, 825, 837, 955, 1069, 1551
North Carolina 21
Pennsylvania 1273
South Dakota 39, 517
Tennessee 569
Texas 39
Virginia 387
Wyoming 39

V
V
in altered wallrock 225
in chlorite 1219
in estuarine sediment 475
in fly ash 1143
in groundwater 49, 259
in intertidal sediment 59
in lake sediment 1171
in sediments 1313
in soil 185, 367, 1209
in sulphide-rich sediment 1209
in till 975
Venezuela 1017
Vietnam, Red River Delta 517
Virginia, U.S.A. 387
Vosges Mountains, France 285
Vuotso-Tankavaara district, Lapland, Finland 885

W
W
in river and stream precipitates 421
in sediments 1313
Wales, U.K., Gwynedd 1017
Wallrock alteration 225
Waste disposal

fly ash 93, 1131, 1143, 1159
municipal solid 1503
nuclear 207, 649, 1287, 1543, 1551
self-sealing isolation 93
toxic 207
Water-rock interaction 39, 163, 259, 455, 583, 855, 1047, 1381
Weathering 1313
chemical 855
of municipal solid waste bottom ash 1503
rate 855
estimation 11, 583
using Sr and Sr isotopes 285
tropical 321
West Bengal, India 517
Wicklow, Ireland 1017
Wiltshire, England, U.K. 903
Wyoming, U.S.A. 39

Y
Y
in acid mine/rock drainage 633
in altered wallrock 225
in chlorite 1219
in groundwater 259
in intertidal sediment 59
in pore water 903
in sediments 1313
in soil 185
in tuff 683
in weathered greenstone belt rocks 321
Yb
in groundwater 259
in intertidal sediment 59
in sediments 11313
in soil 185
in weathered greenstone belt rocks 321
Yucca Mountain, Nevada, U.S.A. 659, 683, 699, 709, 735, 751, 781, 793, 807, 819, 825, 837, 955, 1551

Z
Zaire 1017
Zimbabwe 975, 1017
Zn
accumulation in *Mytilus galloprovincialis* 1351
in acid mine/rock drainage 569, 633, 1081
in altered wallrock 225
in chlorite 1219
in colloids 1183
in estuarine sediment 475, 1563

in fiord sediment 493, 923
in fly ash 93
in glacier meltwater 855
in grass 1003
in groundwater 49, 259
in intertidal sediment 59
in jarosite waste 93
in lake sediment 1171, 1563
in mine waste 1093
in pore water 903
in river and stream precipitates 421
in river and stream sediment 105, 475, 1093
in river and stream water 421, 1183
in road sediment 353
in marine sediment 29
in soil 185, 353, 367, 475, 961, 1003, 1209
in sulphide-rich sediment 1209
in till 975
toxicity in animals 1017
$^{66}Zn/^{64}Zn$, for assessing biological uptake 1351
Zr
in altered wallrock 225
in chlorite 1219
in fly ash 93, 1143
in marine sediment 29
in sediments 1313
in soil 367
in tuff 683
in weathered greenstone belt rocks 321
Zurzach, Switzerland 1551

AUTHOR INDEX
(Erratum-E; Editorial-Ed, Preface-P)

Aario R. 885
Abate G. 105
Adorni-Braccesi A. 79
Aja S. U. 1219
Amelin Y. 709
Anderson J. E. 1273
André L. 1313
Anghel I. 819
Antony S. S. 475
Asmund G. 493
Åström M. 1209
Aubert D. 285
Baker P. A. 1381, 1435
Banwart S. A. 431
Barbieri M. 1543
Bardoux M. 321
Barjaktarovic L. 605
Barros A. J. 259
Bencala K. E. 1183
Bencini A. 79, 515
Bendell-Young L. I. 605, 1563
Benner S. G. 301
Ben Othman D. 1351
Berdie L. 1
Bernard A. 1313
Berner Z. A. 1515
Bigham J. M. 409, 421, 569, 1273
Blowes D. W. 301
Boddum J. K. 503
Bottrell S. H. 903
Bowen J. L. 935
Brendler V. 633
Britton A. 1061
Brown G. H. 855
Brumsack H.-J. 621
Bruni J. 455
Bruno J. 399
Burke S. P. 431
Burkett D. C. 987
Callahan J. E. 21
Cambier P. 245
Campos P. G. 1
Canepa M. 455
Èaplovièová M. 245
Carey P. J. 1115
Casanova F. 1551
Chappell D. A. 1105
Chiodini G. 455
Christensen T. H. 503
Cioni R. 455
Cipolli F. 455
Clay J. W. 903
Cloke P. L. 683, 955 (E)
Comans R. N. J. 1503
Conradson S. D. 837
Cooper G. R. C. 981
Cortecci G. 79, 515
Coudrain-Ribstein A. 39
Coventry R. J. 987
Craig J. R. 21
Cravotta C.A., III 1273
Craw D. 445, 1105
Cresser M. 11
Crock J. G. 1069
Darby Dyar M. 1219
da Silva I. S. 105
Dautel C. 1551
Davidson G. R. 1361
De Carlo E. H. 475
Dellwig O. 621
de Pablo J. 399
De Putter Th. 1313
de Vos E. 1115
Dinelli E. 79, 515, 1081
Ding M. 93
Dong S. 59
Dubiková M. 245
Dudley W. W. 659
Dupuis Ch. 1313
Duro L. 399
Durucan S. 1029
Dutkiewicz A.1375
Eadington P. J. 1375
Edwards R. 1305
Edwards S. J. 1115
Efurd D. W. 837
El Aamrani F. Z. 399
Elbaz-Poulichet F. 1343
El Bilali L. 1171
Elberling B. 493
Erasmus C. R. 1159
Fannin C. 1305
Farmer J. G. 1061
Faure G. 421, 569
Favreau G. 1343
Fey D. L. 1069
Filzmoser P. 185
Fortin D. 1171
Fuge R. 959 (P)
Gamo T. 1457
Garrett R. G. 185
Gascoyne M. 657 (P), 781
Gavin K. G. 1061
Geng A. 1529
George S. C. 1375
Gierszewski P. 1287
Gieskes J. M. 1381, 1435
Gillman G. P. 987
Girvin D. C. 649

Glassley W. E. 699
Gooddy D. C. 903
Goodfellow W. D. 1381, 1435
Gouze P. 39
Graham M. C. 1061
Gray J. E. 1069
Grechi G. P. 1329
Grimalt J. O. 1
Groffman A. R. 825
Grünberger O. 1047
Guidi M. 515
Gunn A. G. 367
Hall G. E. M. 1171
Hama K. 1241
Hamon C. J. 1287
Hansen Y. 1131
Helvaci C. 163
Hennig C. 633
Herman J. S. 387
Higney E. 1123
Hinrichs J. 621
Hodson M. E. 117
Hornberger G. M. 387
Hurai V. 1259
Hüttig G. 633
Ishibashi J. 1381, 1457
Islam M. R. 885
Iwatsuki T. 1241
James R. H. 1381
Jedwab J. 1313
Jensen D. L. 503
Jochum J. 225
Kallio E. 975
Karamanderesi Ý. H. 163
Kelly E. 1305
Kercher J. R. 699
Kihle J. 1259
Kim K.-W. 1165
Kimball B. A. 1183
Kinniburgh D. G. 517
Kirika A. 1061
Klinge H. 1515
Kluge A. 633
Knapp E. P. 387
Kopstik G. 123
Kopstik S. 123
Korre A. 1029
Kotulová J. 1259
Koutroumani A. 1029
Kroeger K. D. 935
Krogstad E. J. 493
Kunzendorf H. 29, 493
Labonne M. 1351
Larsen B. 29
La Ruffa G. 79
Leduc C. 1343
Lee B.-T. 1165
Lee G. 569
Leosson M. A. 1515
Li G. 59
Liao Z. 1529
Lichtig J. 105
Lindbo D. L. 409
Longinelli A. 455
Lopez-Quintero J. G. 1
Lu N. 837
Luck J.-M. 1351
Ludwig K. R. 751
Lyon J. G. 1273
Macdonald D. M. J. 259
Machin J. 961
MacKenzie A. B. 1093, 1123
Magro G. 1329
Mahn C. 1435
Marini L. 455
Marko F. 1259
Masini J. C. 105
Maskall J. 1003
Mayer K. U. 301
McDonald I. 1115
McGrail B. P. 649
McQuillan A. J. 445
Meijer A. 793
Meima J. M. 1503
Metcalfe R. 1241
Mihara M. 207
Miller J. M. 21
Miller N. H. 781
Mills A. L. 387
Minissale A. 1329
Moll H. 633
Montoroi J.-P. 1047
Moulin V. 1551
Müller A. 337, 923
Munk L. 421
Nasri S. 1047
Navarrete-Reyes L. E. 1
Navas A. 961
Newcomb W. D. 49
Neymark L. A. 709, 751, 781
Nicaise D. 1313
Nicolli H. B. 259
Notten P. J. 1131
Noy D. 207
Olive V. 1123
Österholm P. 1209
Ottonello G. 455
Oxtoby N. H. 1371
Paces J. B. 709, 735, 751
Pacheco F. A. L. 583
Panettiere P. 515
Pearce J. 1305
Perruchot A. 1313
Peterman Z. E. 657 (P), 683, 709, 735, 751, 955 (E)
Petrie J. G. 1131

Peuraniemi V. 885
Pride D. E. 421
Probst A. 285
Ptacek C. J. 301
Pulford I. D. 1093, 1123
Rasmussen P. E. 1171
Reich T. 633
Reiller P. 1551
Reimann C. 185
Reimus P. W. 819
Rhoton F. E. 409
Richter W. 633
Rimstidt J. D. 49
Roach J. L. 825
Roddick-Lanzilotta A. J. 445
Rogers K. M. 69
Rojstaczer S. 885
Ruble T. E. 1375
Runkel R. L. 1183
Runde W. 837
Rushdi A. I. 1401, 1467
Sano Y. 1457
Saripalli K. P. 649
Satake H. 1241
Sato M. 1457
Savage D. 207
Savard M. M. 69
Schuilling R. D. 93
Seidel J. L. 1343
Shanks W. C. III 1381, 1457
Simmons A. M. 699
Simoneit B. R. T. 129, 1379 (Ed), 1381, 1401, 1429, 1435, 1467, 1495
Smart R. 11
Smedley P. L. 259, 517
Sparrow M. A. 1495
Srand L. 123
Stecko J. R. P. 1563
Stille P. 285
Strietelmeier B. A. 825
Stroes-Gascoyne S. 1287
Strong J. 1159
Strydom C. A. 1143
Stüben D. 1515
Stuckless J. S. 659
Stutter M. 11
Šucha V. 245
Sutherland R. A. 353
Sutton P. 1003
Swanepoel J. C. 1143
Œwierczewska A. 1259
Szava-Kovats R. C. 1149
Tait C. D. 837
Tarvainen T. 975
Tassi F. 1329
Tateo F. 1081
Taylor Eighmy T. 1503
Teveldal S. 123
Thomas C. A. 1563
Thornton I. 1003, 1017
Tjell J. C. 503
Traina S. J. 1273
Tullio J. O. 259
Turin H. J. 819, 825
Valiela I. 935
Van der Sloot H. A. 93
Van der Weijden C. H. 583
Van der Weijden R. D. 1503
VanPelt C. E. 837
Vaselli O. 1329
Vengosh A. 163
Verma M. P. 513
Vilks P. 1287
Viville D. 285
Voicu G. 321
Wagner T. 225
Wakita H. 1457
Walton-Day K. 1183
Wang L. 59
Wang X. 59
Wray D. S. 1115
Whelan J. F. 735
Williams D. J. 1273
Williams T. M. 367
Wolfsberg L. E. 825
Woolard C. D. 1159
Yang I. C. 807
Yang J. 59
Yoshida H. 1241
Zänker H. 633
Zhang C. 59
Zucculino M. V. 455